



# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# Reducing Ozone Transport A Shared Responsibility

April 14, 2015

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# Agenda

- Ozone Transport – Regional challenge
- A Closer look at an Ozone episode
- The need to “level the playing field”
- Next Steps

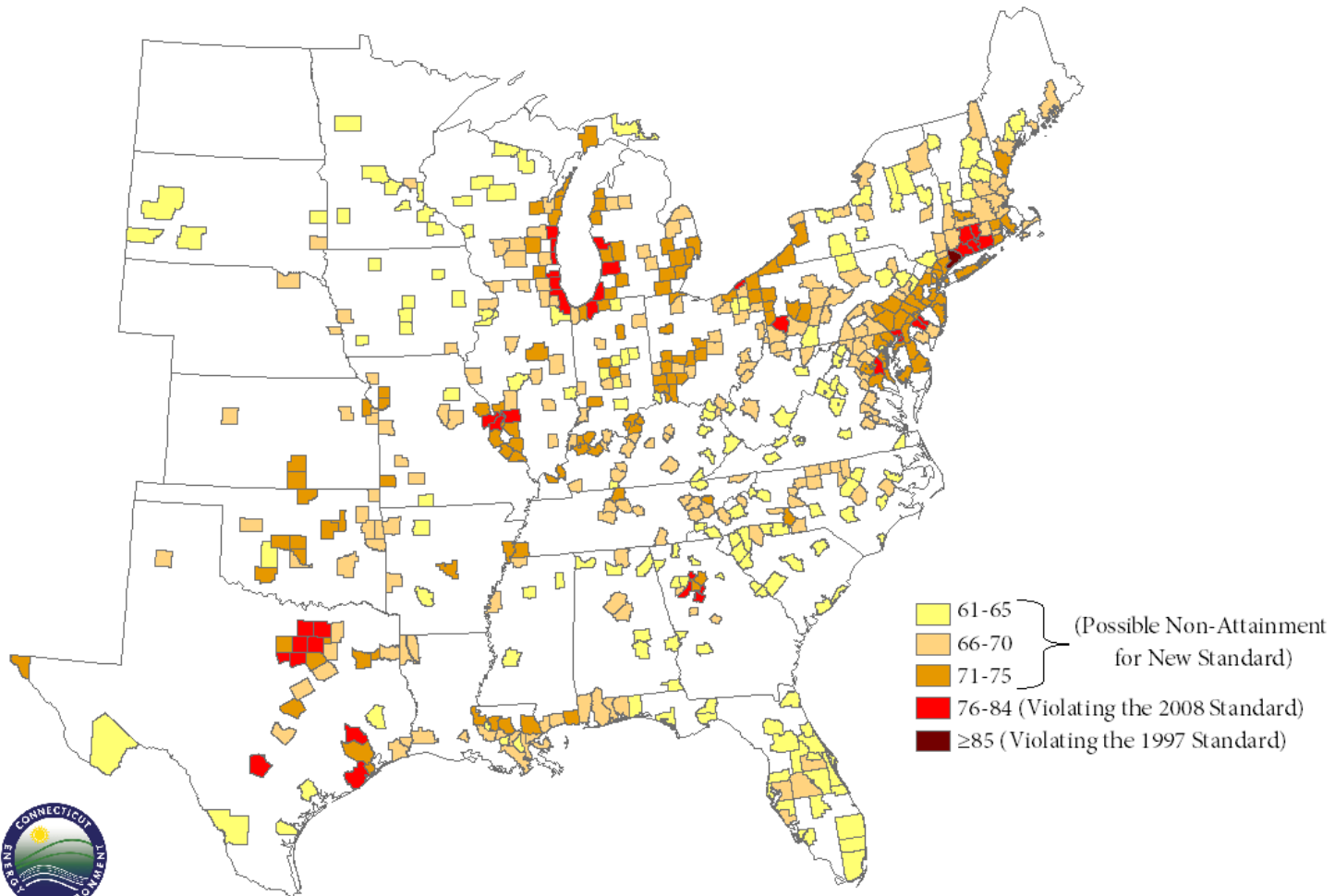


# Region's Air Pollution Challenge: Ozone

## Possible Non-Attainment Counties in Eastern US for 8-hour Ozone Standards

Note: Based on Preliminary 2014 Design Values. All values are preliminary until certified. Preliminary data for western states not readily available.

source: <http://www.maine.gov/dep/ftp>



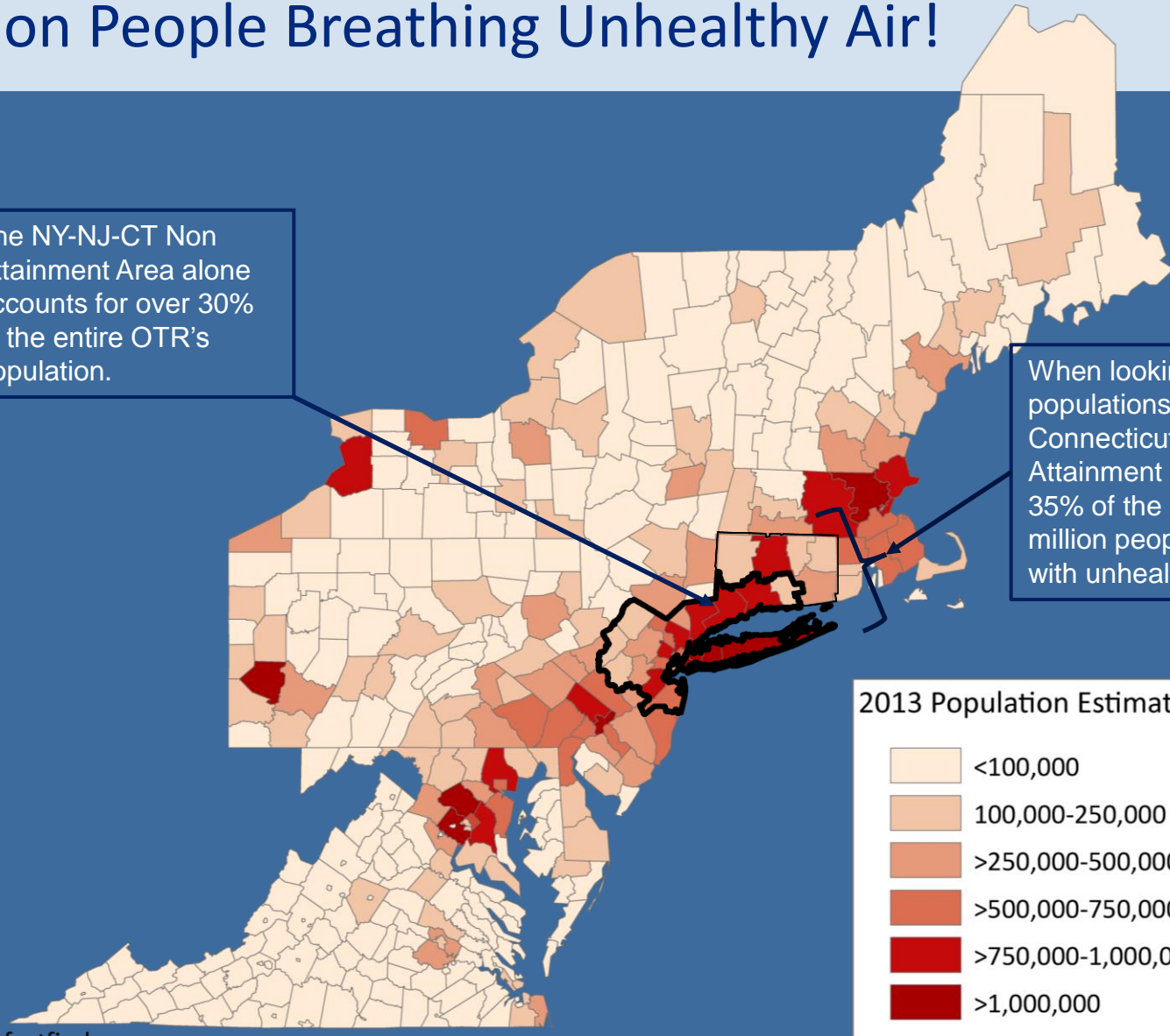
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# 22.2 Million People Breathing Unhealthy Air!


The NY-NJ-CT Non Attainment Area alone accounts for over 30% of the entire OTR's population.

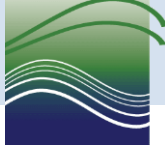
When looking at the populations in both of Connecticut's Non-Attainment areas just over 35% of the OTR or 22.2 million people are in areas with unhealthy air quality.



2013 Population Estimates

	<100,000
	100,000-250,000
	>250,000-500,000
	>500,000-750,000
	>750,000-1,000,000
	>1,000,000

 Data Source: [factfinder.census.gov](http://factfinder.census.gov)

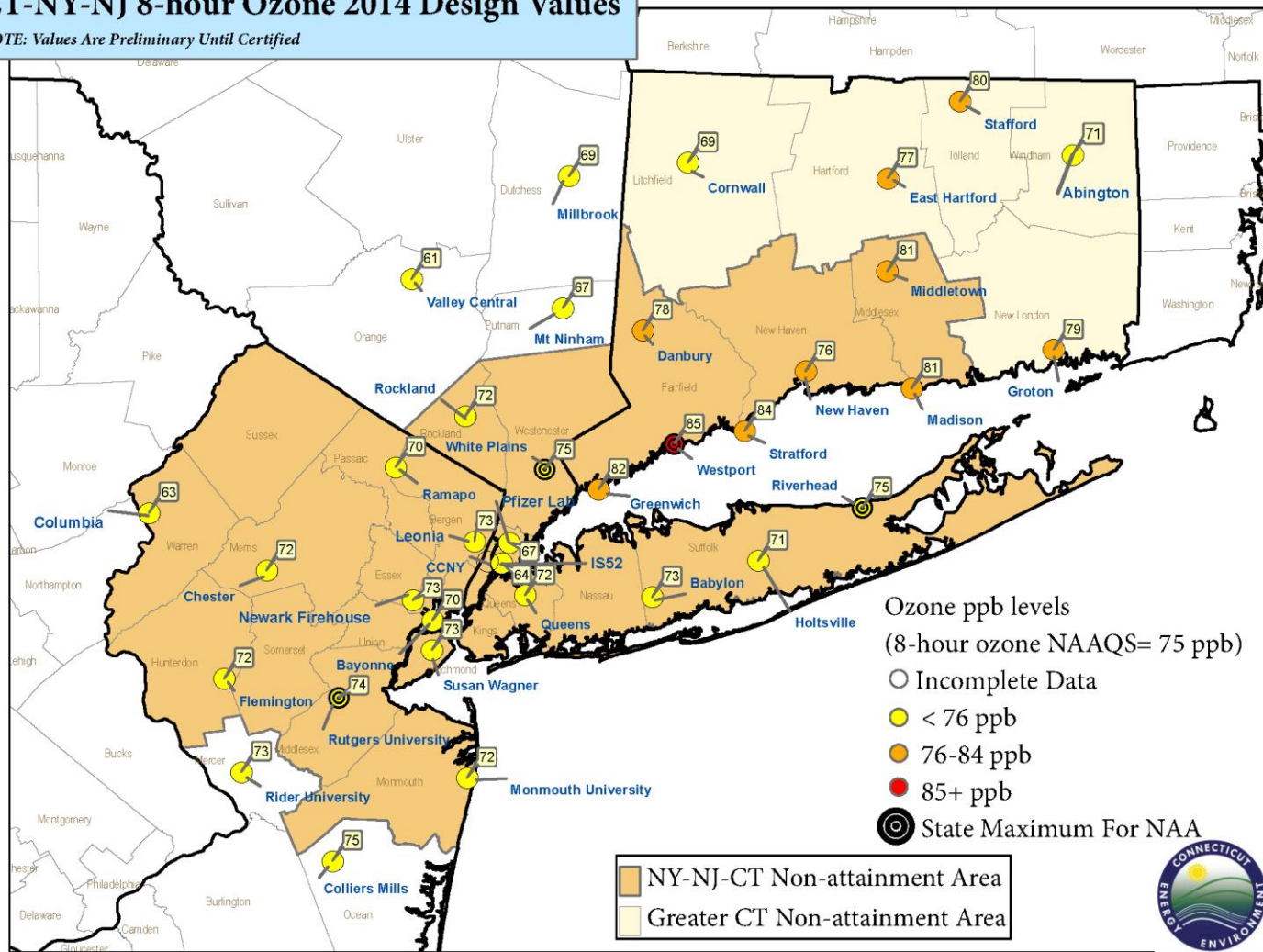




# A Closer Look at Ozone Levels

## CT-NY-NJ 8-hour Ozone 2014 Design Values

NOTE: Values Are Preliminary Until Certified

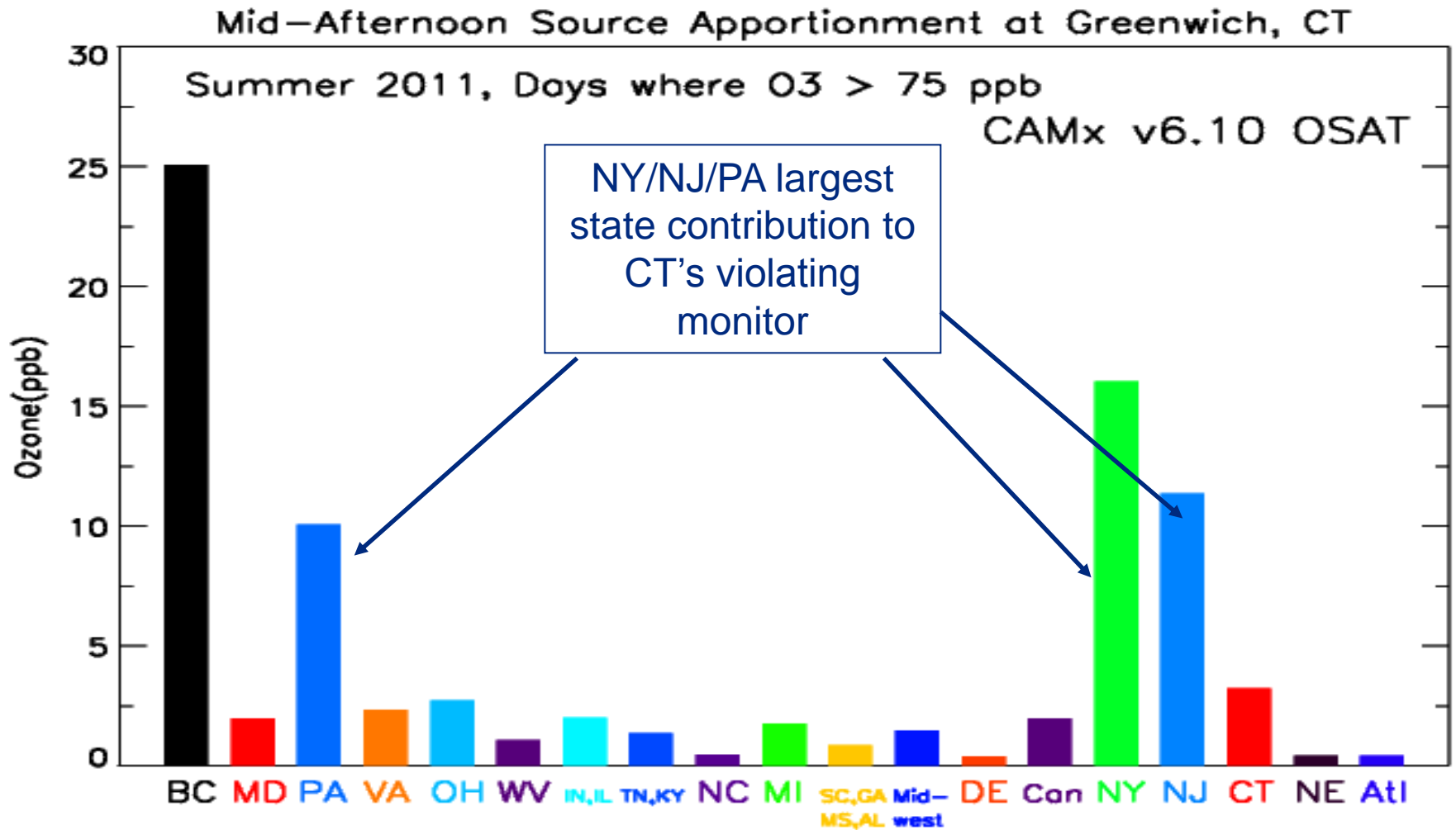


Revised October 7, 2014

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# States' Contribution to a Violating Monitor in CT





# Analysis of an Ozone Episode in 2012



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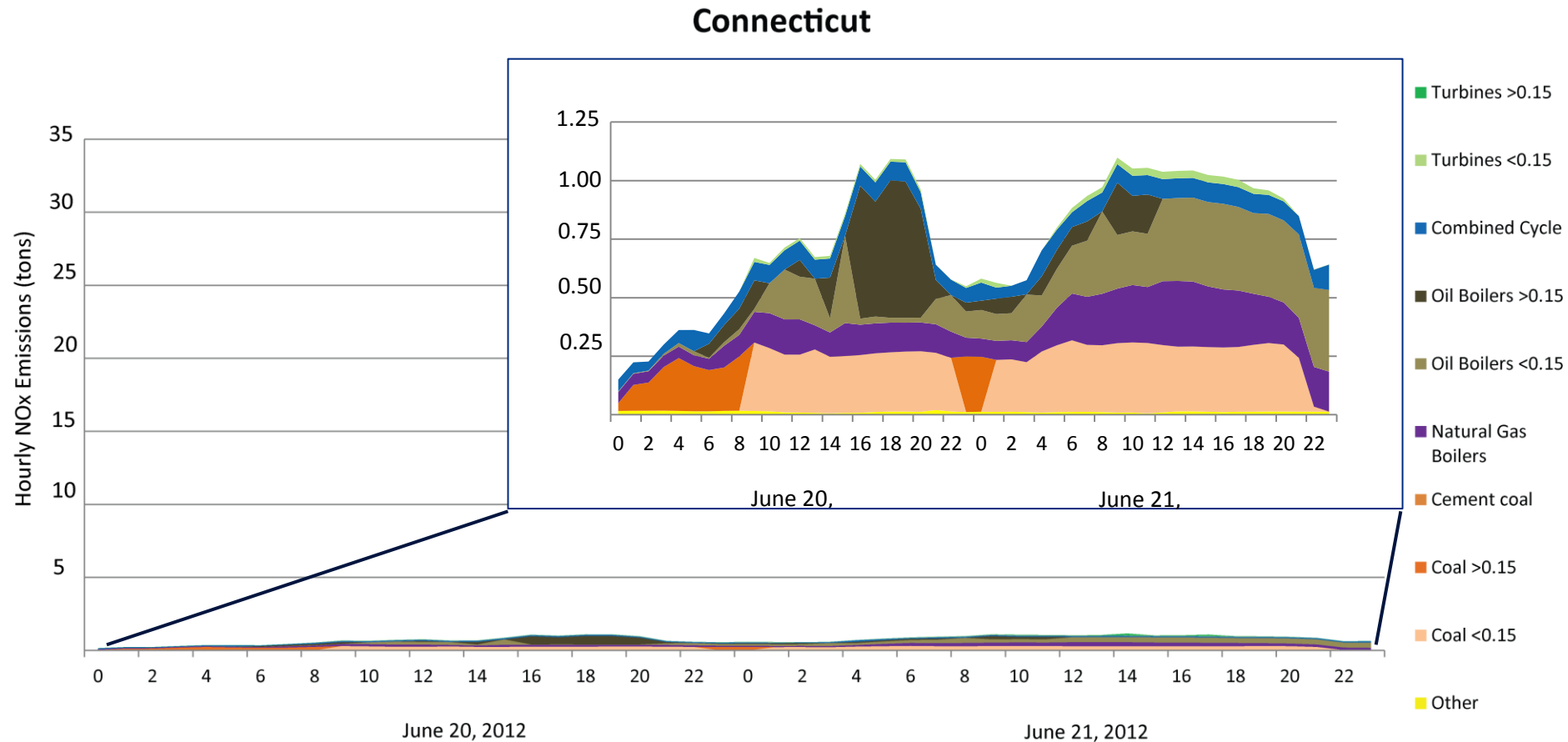
# High Electric Demand Day Emissions

- High electric demand day emissions are part of the persistent ozone attainment problems in the OTC
  - High NO<sub>x</sub> emissions at a time with the highest ozone forming potential.
  - Reductions are a key to attaining the ozone NAAQS.
- High electric demand day units
  - Smaller units (e.g., aeroderivative turbines, load-following boilers) are a big contributor to total EGU emissions on high demand days.
- Nature of peak day emissions differs from state to state



# Connecticut must address oil fired boiler emissions

Peak EGU\* hourly emissions, ~1 ton



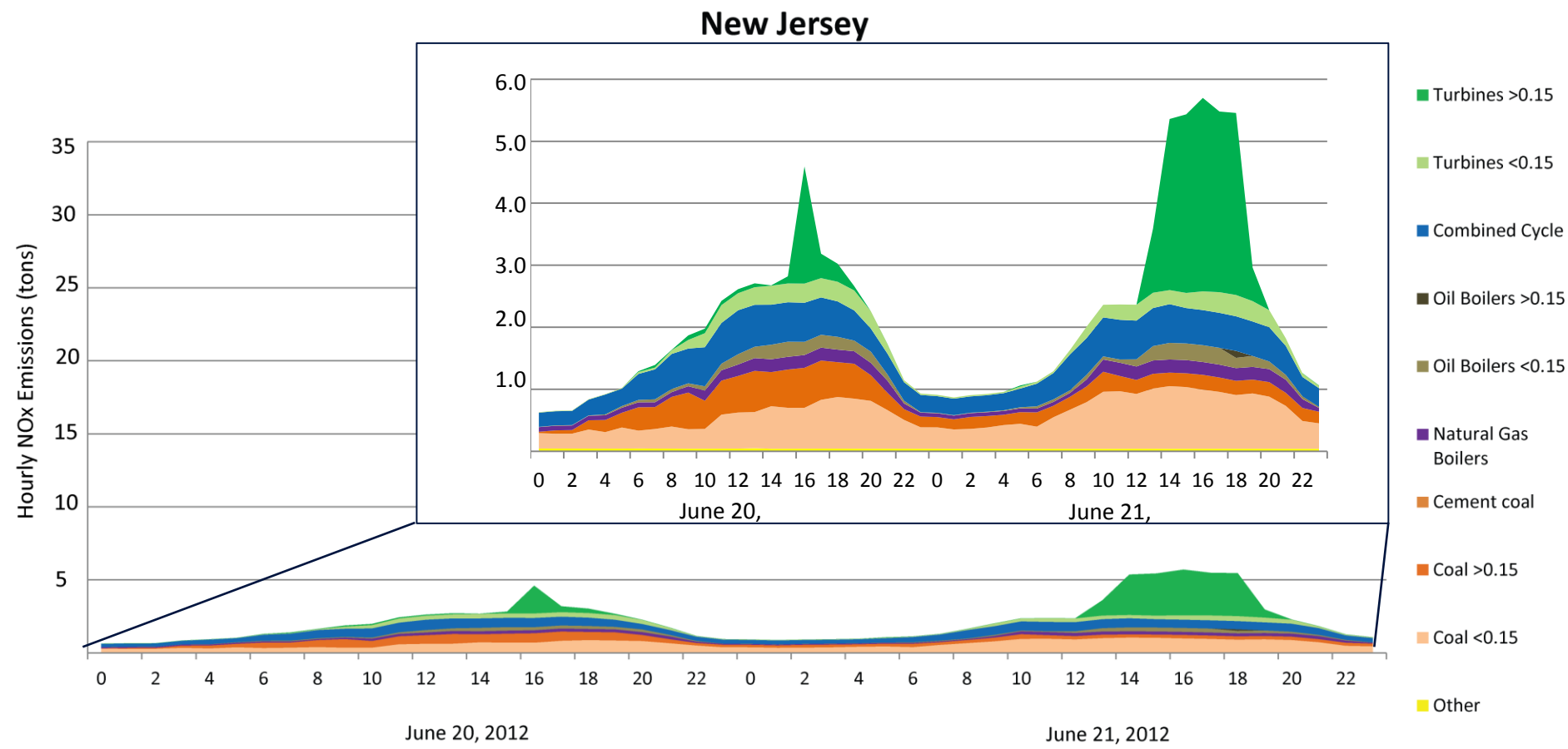
\*May include large industrial sources  
Data Source: <http://ampd.epa.gov/ampd/>



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# New Jersey's HEDD rule addresses the peak in 2015

Peak EGU\* hourly emissions, ~5 tons

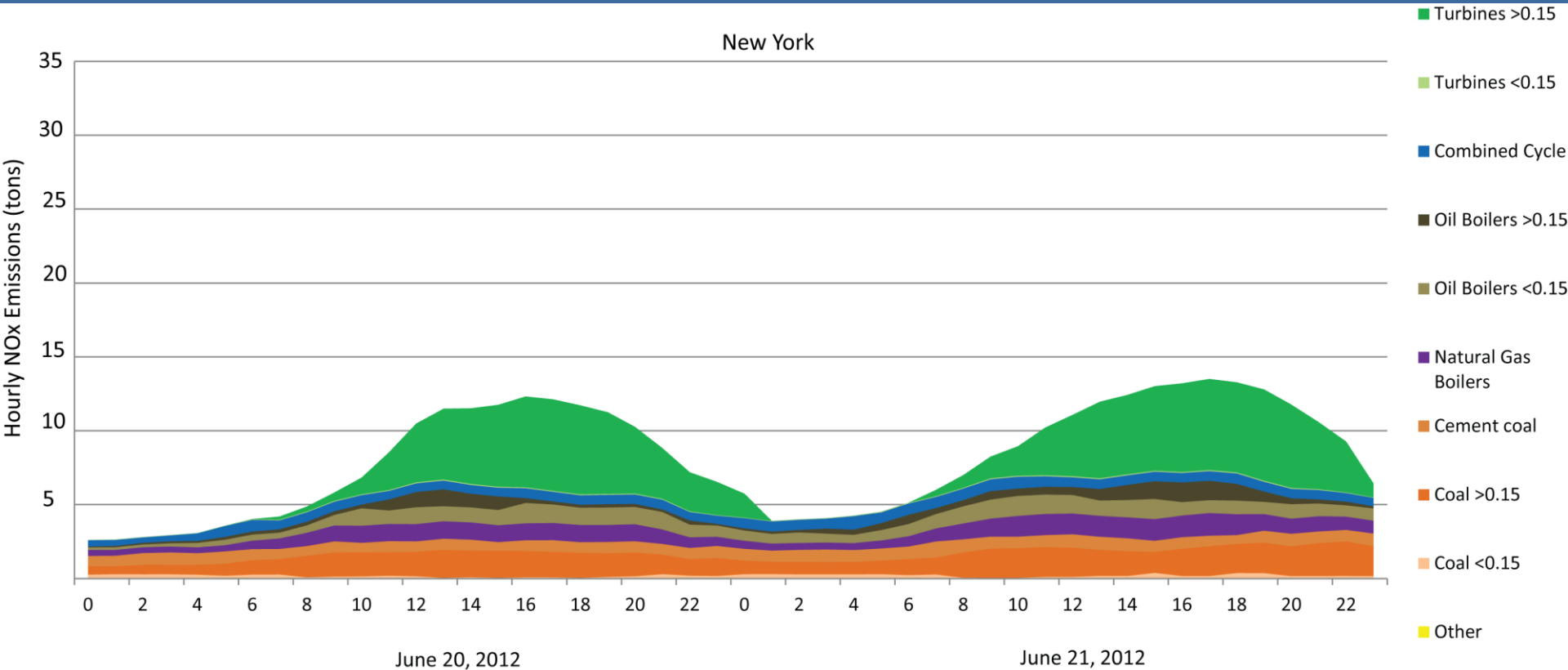


\*May include large industrial sources  
Data Source: <http://ampd.epa.gov/ampd/>



# New York must address combustion turbine emissions

Peak EGU\* hourly emissions, ~12.5 tons



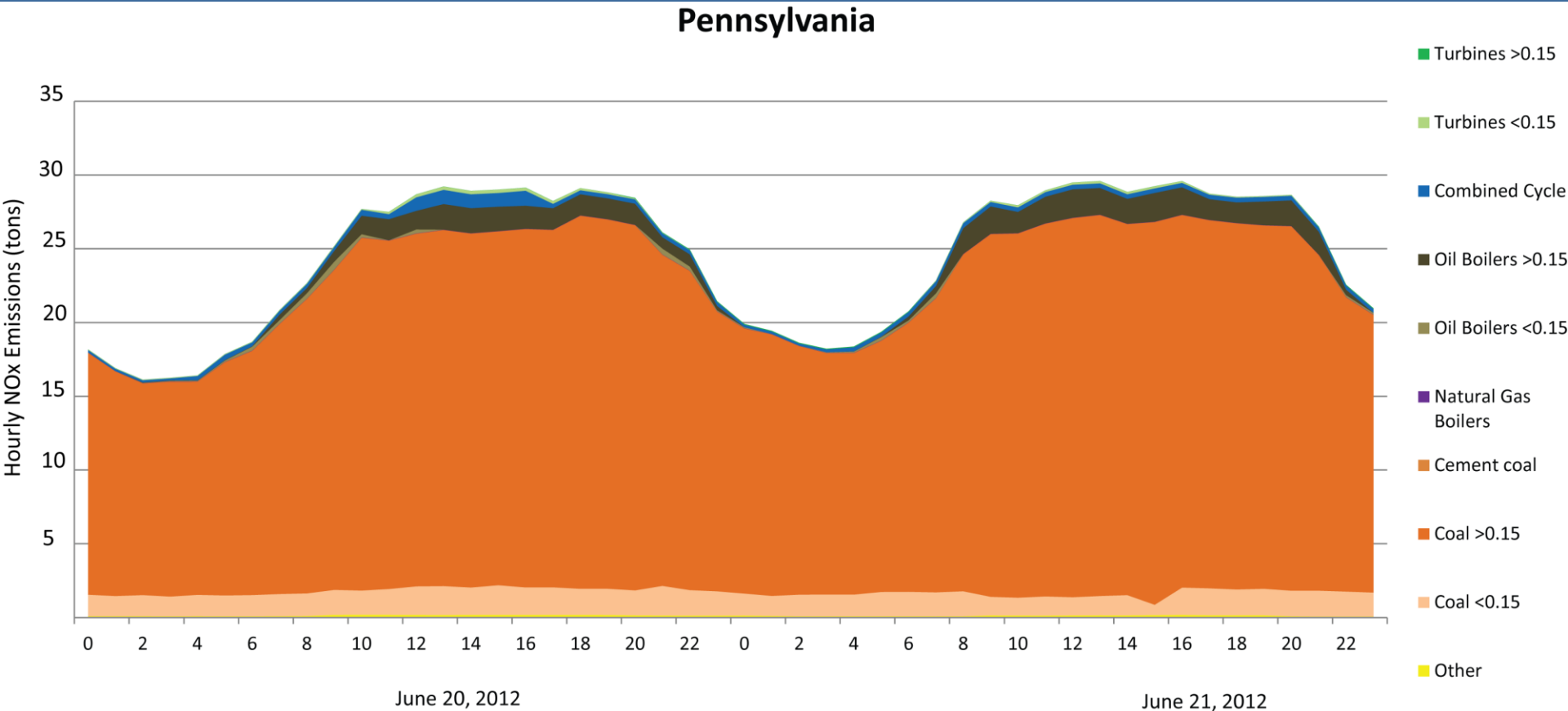
\*May include large industrial sources  
Data Source: <http://ampd.epa.gov/ampd/>



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# Pennsylvania must address emissions from coal firing

Peak EGU\* hourly emissions, ~30 tons



*\*May include large industrial sources  
Data Source: <http://ampd.epa.gov/ampd/>*



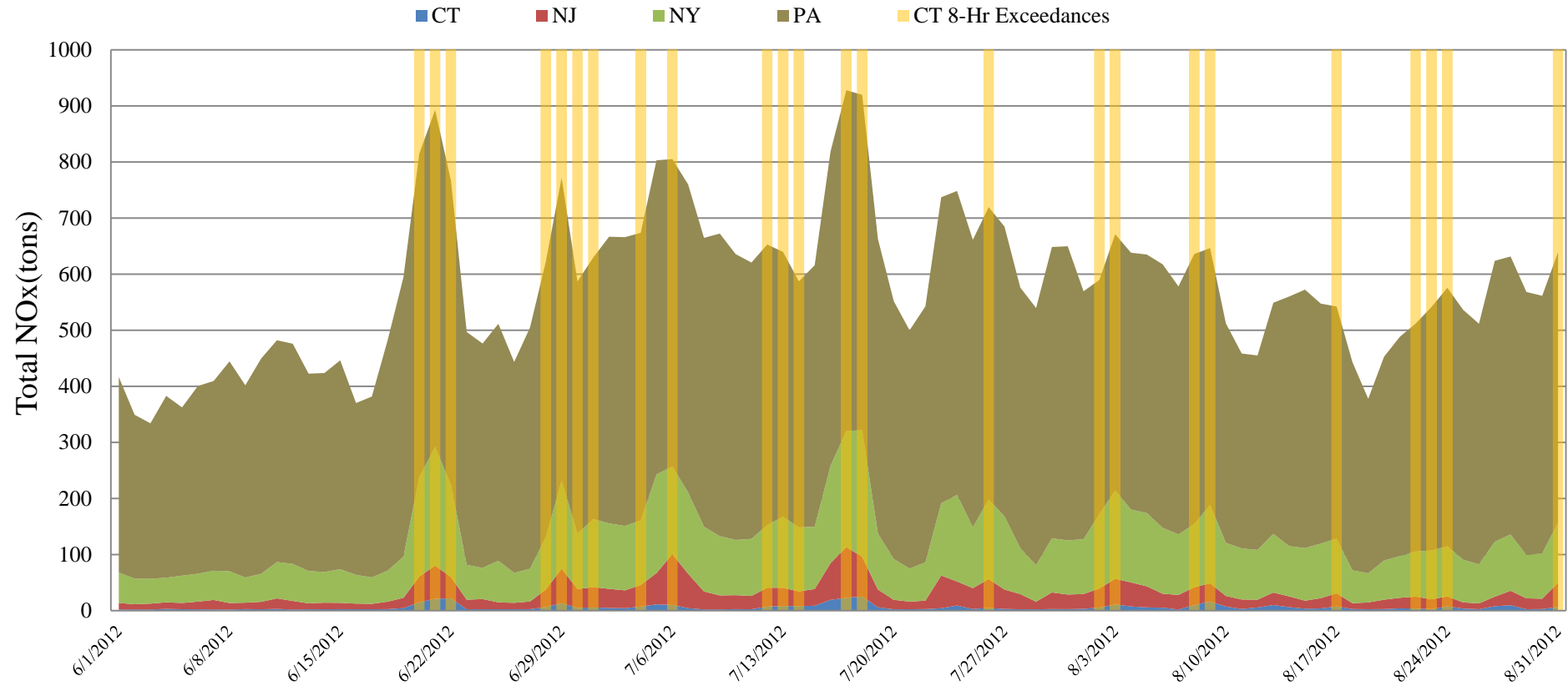
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# Magnitude of Peak Day EGU\* Emissions Differs by State

## Daily Total EGU\* NO<sub>x</sub> Emissions for CT, NJ, NY and PA

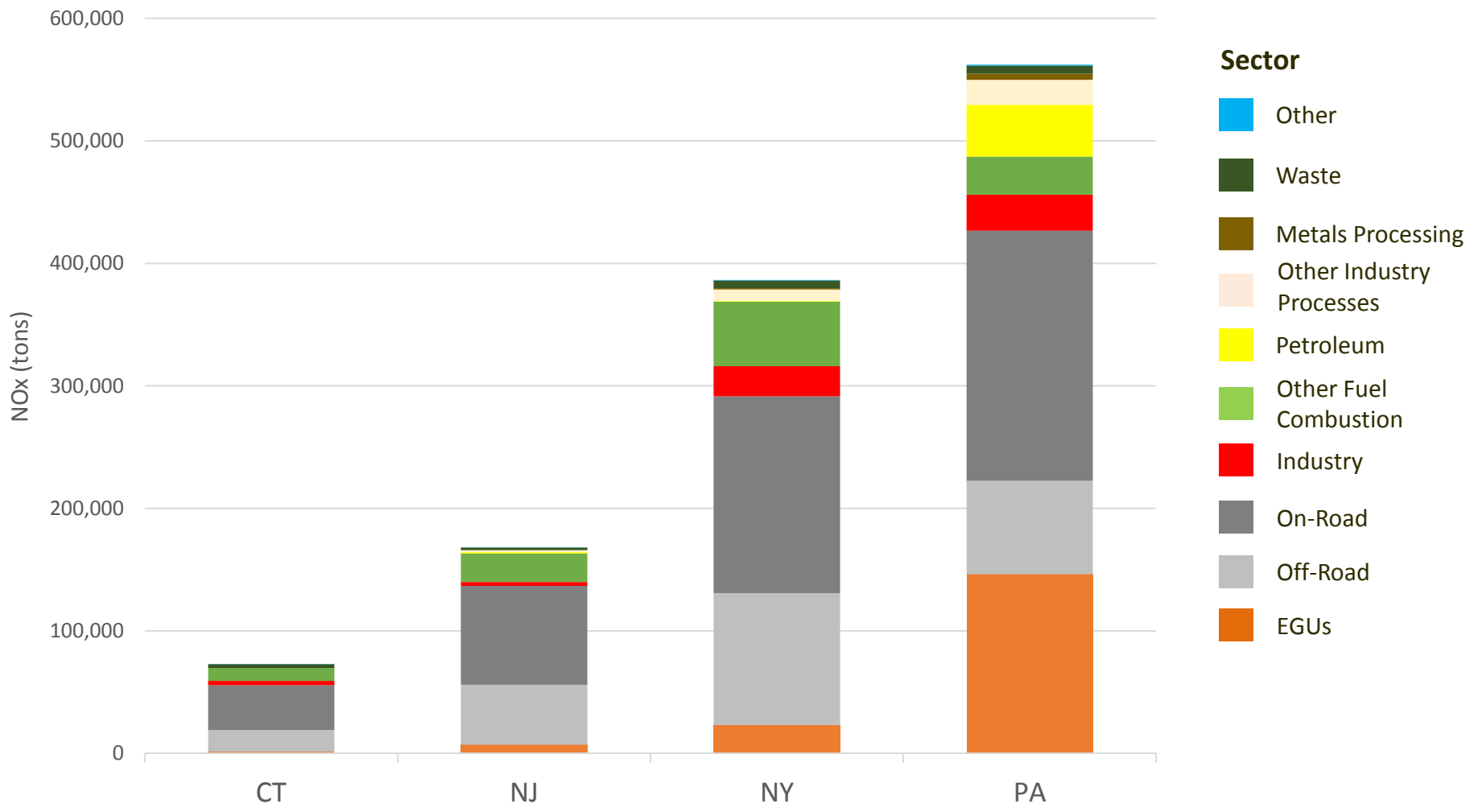
June - August, 2012



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\*May include large industrial sources  
Data Source: <http://ampd.epa.gov/ampd/>

# 2011 Annual Total Emissions by Sector for CT, NJ, NY and PA



# Shared Responsibility – a level playing field

- CT will continue to adopt reasonable measures and continue reducing energy demand through RE/EE investments
- Upwind states (inside and outside of OTR )
  - HEDD reductions
  - Optimize existing controls/install new controls
  - Mobile source strategies - SmartWay<sup>®</sup>, aftermarket catalyst
- EPA must take timely action
  - Good Neighbor Requirements
  - Transport rule
  - Mobile Source reductions
  - Tough on state RACT SIPs



# Strong Leadership at New Jersey DEP

## Achievement Award

**Leadership on HEDD reductions**

**Leadership on Control Requirements**

**Leadership on OTC Mobile Source  
Committee**

**Mobile Source Emission Reductions**



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# We're Making Good Progress but...

- Not attaining the current ozone standard
- New, tighter standard is highly likely
- Status quo approach won't bring us healthy air
- Need to start looking at non-conventional programs



# California Dreaming

- Carl Moyer Program
- Public Agency PEV Rebate Program
- Voucher Incentive Program (VIP)
- Port of LA – Clean Air Action Plan
  - Environmental Ship Index Program
  - Vessel Speed Reduction Program
  - Clean Truck Program
  - Alternative Maritime Power
- Marine Repower and Retrofit





# Thank You



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